

be accomplished by the use of Dr. Syms' perineal prostatic retractor. Of course, it was a convenience in the device shown by Dr. Meyer that it was hollow from end to end, and through it one might finally wash out the stomach. However, on removal of the Syms' retractor, a stomach tube could in a few moments be passed in its place, and do the same work of lavage.

#### CONGENITAL HYDRONEPHROSIS.

DR. ERDMANN showed a specimen, which was removed from a child three months old. The circumference of the child's abdomen prior to the operation was  $21\frac{1}{2}$  inches, and immediately after the operation 13 inches, and the weight of the child fell from fourteen and a half pounds to nine and three-quarter pounds. The only history obtainable was that the child was born with considerable difficulty on account of the presence of an immensely enlarged abdomen. The operation was done three weeks ago and the patient made an uneventful recovery.

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*Stated Meeting, February 28, 1906.*

The President, DR. GEORGE WOOLSEY, in the Chair.

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#### PERFORATED GASTRIC ULCER; GENERALIZED PERITONITIS.

DR. CHARLES H. PECK presented a woman, 23 years of age, who was admitted to Roosevelt Hospital, service of Dr. R. F. Weir, late in the evening of December 17, 1905, with the following history: She had been troubled with indigestion for a long time, and about two years ago had vomited some blood. There had been no especial exacerbation of symptoms of indigestion up to 6 o'clock the afternoon before admission, when she was suddenly seized with violent epigastric pain, vomiting and collapse. There was no blood in the vomitus. The pain continued, and distention of the abdomen increased steadily up to the time of admission.

On admission, the abdomen was found greatly distended; tenderness and rigidity were general, but greatest in the upper

half of abdomen. On percussion there was complete absence of liver dulness; tympanitic note all over front of abdomen with shifting dulness in the flanks; no fluid wave detected; facies anxious; respiration rapid and shallow; pulse, 138, small and thready. No leucocyte count was made. A diagnosis of perforated gastric ulcer was made, and the patient was immediately prepared for operation.

Operation at 11 p.m., 29 hours after the onset of symptoms of perforation. Ether anaesthesia.

A median incision made above the umbilicus; on opening the peritoneum, there was a gush of gas and turbid fluid. Thick flakes of recent lymph covered the anterior aspect of the stomach, and the adjacent surfaces of the liver and surrounding peritoneum. Some delay was caused by searching for the perforation in the region of the pylorus before it was finally located about midway between the greater and lesser curvatures on the anterior wall, not far from the centre of the anterior aspect. The perforation was large enough to admit the little finger. The surrounding stomach-wall, for a radius of nearly an inch, was thickened, infiltrated and friable. The perforation was closed with silk mattress-suture, placed with some difficulty, owing to the friability of the surrounding stomach-wall, and a few silk Lembert stitches effected an imperfect inversion of the area. The peritoneal cavity was then rapidly flushed with salt solution through the large Blake tube. Purulent fluid, flakes of fibrin, and particles of food were washed from every part of the peritoneal cavity (excepting the lesser sac), including the sub-diaphragmatic space. Large quantities were removed from the pelvis and both flanks; the abdominal cavity was unusually long and capacious. The gall-bladder and liver were normal.

Two large cigarette drains were placed down to the site of the perforation, between the anterior surface of the stomach and the under surface of the liver, and excepting at their point of exit; the abdominal wall was closed by layers with catgut, chromic gut, silkworm and silk. Time of operation, 34 minutes; patient's condition very poor.

The patient rallied well under stimulation; the bowels were moved by an ox-gall enema at the end of 48 hours, and the symptoms of peritonitis gradually subsided. There was little

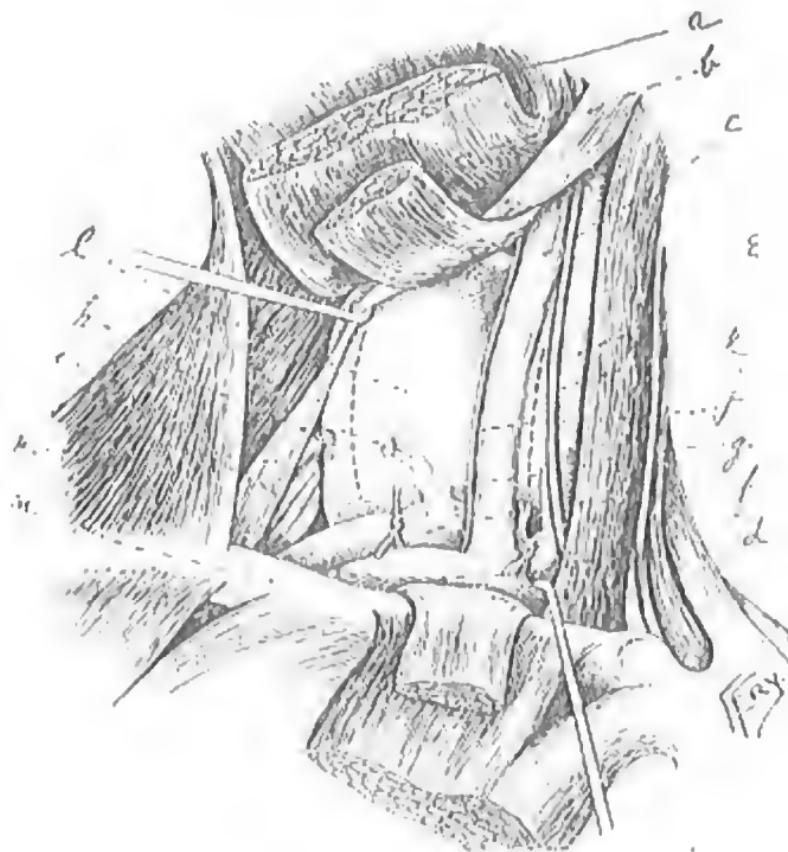
or no vomiting after the operation, and the temperature subsided gradually, but the pulse remained persistently high (115 to 130) for more than a week. The drains were first removed on the sixth day, and replaced by smaller ones. There was a rather profuse discharge from the drainage-tract for about two weeks, but there was never any escape of food or gas. There was some late infection in the muscular planes, which subsided without incident. Milk feeding was commenced at the end of forty-eight hours, and soft solids in about ten days. Convalescence was somewhat slow but progressed favorably, and at the time of the patient's discharge from the hospital, on January 24, 1906, while still weak, her condition was very satisfactory. The wound was entirely healed, excepting a shallow sinus at the point of drainage. A small abscess developed in the abdominal wall about three weeks later, but healed without incident.

#### TRAUMATIC ANEURISM OF THYROID AXIS.

DR. CHARLES H. PECK presented a boy, 14 years of age, who was admitted to Roosevelt Hospital, service of Dr. R. F. Weir, on January 12, 1906, with the following history: On New Year's Eve, 12 days prior to admission, he was stabbed in the neck with a tin horn. He was brought to the hospital at once in the ambulance, suffering from shock and haemorrhage.

There was a small lacerated wound ( $\frac{1}{4}$  in. long) about  $1\frac{1}{2}$  inches above the centre of the right clavicle, which bled profusely, and there was an extensive ecchymosis in the surrounding region. The wound was dressed, and he was kept in the ward for two days for observation. The haemorrhage was easily checked by pad pressure and bandaging. Condition rapidly improved, and he left the hospital with the wound healing cleanly, rather widespread ecchymosis, but no paralysis, nor evidence of nerve injury or pressure, symptoms which were carefully looked for as the point of injury was over the brachial plexus. He returned to the accident ward for dressing every day or two; the wound healed by first intention, and the ecchymosis subsided, but he began to complain of pain in the shoulder and upper arm. On January 12, the day of admission, he returned, complaining that the pains were increasing and that the arm was weak.

On examination, a pulsating tumor was found beneath the



#### TRAUMATIC ANEURISM OF THYROID AXIS.

a, Sternomastoid; divided and reflected. b, Scalenus anticus; divided and reflected. c, Internal jugular vein. d, Subclavian vein. e, Common carotid artery. f, Subclavian artery, showing ligatures on first and third portions. g, Thyroid axis, forming stalk of aneurysmal sac. h, Transversalis collis artery, ligated and divided. i, Brachial plexus. j, Phrenic nerve. k, vagus. l, Aneurysmal sac; dotted lines indicate where sae was laid freely open at outer and inner aspects. m, Clavicle. n, Omohyoid.

lower part of sternomastoid, projecting beyond its posterior border, and anteriorly to its anterior margin. The upper limit could be fairly well defined, and was  $1\frac{1}{2}$  to 2 inches above the clavicle; the lower limit could not be defined, extending down to the clavicle. Pulsation was expansile and strong. There was marked inequality of the pupils, that of the injured side being contracted, indicating pressure on the sympathetic nerve. There was a partial paralysis of the upper-arm muscles, most marked in the deltoid, caused by pressure on the brachial plexus. He was admitted to the ward for observation. During the following thirteen days, up to the time of operation, the symptoms did not materially change, excepting that the tumor increased slightly in size. The paralysis of the arm also increased slightly, but the pain remained about the same. The inequality of the pupils persisted. There was no inequality in the radial or temporal pulses.

Operation, January 25, 1906, under ether. A V-shaped flap was dissected back, its anterior margin following the lower half of the anterior border of the sternomastoid, and its lower margin the clavicle. The external jugular vein was doubly ligated and divided; the sternomastoid was divided transversely about one inch above the clavicle, and reflected in both directions. The phrenic nerve was exposed on the anterior aspect of scalenus anticus, dissected free from it, and lifted forward with the internal jugular vein. The vein was then separated from the vagus and the carotid, and drawn outward. This exposed the anterior aspect of the inner part of the aneurismal sac, and below it the first portion of the subclavian artery, separate from the sac. A double safety ligature of heavy floss silk was passed around the artery. The third portion of the artery was then exposed external to the scalenus anticus, and a similar safety ligature placed at this point. By careful blunt dissection and retraction of the scalenus anticus, the entire artery was exposed; it was normal in size and appearance. Above it, and in direct contact, lay the aneurismal sac; passing from the artery directly into the sac was the short stem of the thyroid axis. Passing from the sac outward, the transversalis colli artery was seen. It was doubly ligated, and divided. An attempt was then made to pass a small, sharply curved aneurism needle around the thyroid

axis, close to the main vessel,—*i.e.*, between it and the aneurismal sac, but in spite of great caution, the sac, a false one, was ruptured in the attempt. Haemorrhage was profuse; the safety ligatures were at once tightened, but only partly controlled the bleeding. The sac was torn into on its outer margin, and a finger thrust in, controlling the return flow from the branches by direct pressure. The safety ligature on the first portion of the subclavian was then tied with the double strand, Ballance-Edmunds knot; the other safety was replaced by a single strand of silk, tied on the second portion of the artery distal to the thyroid axis. The scalenus anticus was then divided transversely, and reflected, exposing the anterior aspect of aneurismal sac thoroughly. Pressure with the finger within the sac was kept up continuously, severe haemorrhage occurring the moment it was removed. Attempts to secure the bleeding point through the outer opening in the sac failed, and gauze packing also failed to control it. The internal jugular vein was retracted outward, and the sac laid freely open on its inner border; clots were cleared out, and after long effort the principal bleeding point in the upper wall of the sac was secured by a clamp, which was left in place. The remainder of sac was packed with sterile gauze from both outer and inner sides to control the remaining haemorrhage. The sternomastoid was sutured with chromicized cat-gut, the skin with silk. No attempt was made to suture the scalenus anticus. An intravenous saline infusion of 1000 c.c. was given on the table. Time of operation, 2½ hours; condition fair. The aneurismal sac was a false one; posteriorly it lay on the prevertebral muscles; its lower margin extended down to and slightly behind the beginning of the innominate, and the first and second portions of the subclavian; its outer margin lay on the cords of the brachial plexus; the upper margin was beneath the origin of the scalenus anticus; the phrenic nerve and the internal jugular vein crossed the centre of the sac.

The patient reacted well from the shock and haemorrhage. There was a sharp reaction of temperature to 103.4 in the first twenty-four hours, after which it never rose above 100. The radial pulse was first felt at the right wrist on February 4, the tenth day after operation. On February 5, the eleventh day after operation, the clamp was removed, and the gauze packing

withdrawn from the sac from both inner and outer sides. There was no haemorrhage. A small rubber tissue drain was placed in the anterior opening, and all stitches were removed. The wound healed without infection, and is now completely closed, excepting for a small granulating defect at the anterior drainage point and one at the point of flap, where a small area of skin necrosed. The patient was allowed out of bed on the twentieth day after the operation. At the time of his discharge from the hospital, the paralysis of the arm had begun to improve slightly, but the pupils were still unequal.

At the present time, February 28, 1906, the paralysis has entirely disappeared from the arm, but there is still some inequality of the pupils. The pain in the arm disappeared shortly after the operation.

#### TYPHOID PERFORATION.

DR. JOSEPH A. BLAKE presented a man 38 years old, who was admitted to the medical service of the Roosevelt Hospital on November 1, 1905, in the estimated seventh day of a relapse of typhoid fever. On admission, his temperature was 103.6°; pulse, 90; respiration, 24; leucocytes, 14,600, Widal, negative. From the seventh to the thirteenth day, temperature varied from 102° to 104°; pulse 96 to 120. On the tenth day, the leucocytes were 8,000; the differential, 77 per cent. of polymorphonuclears. On November 8, the fourteenth day of the relapse, his temperature dropped at noon from 103.4° to 99°; the pulse from 100 to 88; the respirations to 20. This was followed by a severe chill at 5 P.M., with rise of temperature to 104°; pulse 104; respirations 24. He complained of some pain, referred to the umbilicus. There was slight distention, a good deal of rigidity and some general tenderness. At midnight he was asleep and comfortable; at 3 A.M. he complained of some abdominal pain on drinking a glass of water; at 6 A.M. there was some distention, marked board-like rigidity, general tenderness, and absolute loss of liver dulness. Temperature 98°; pulse 100; respirations 24; leucocytes 15,300; differential, 79.6 per cent. polymorphonuclears.

When Dr. Blake saw the patient that morning, he advised immediate operation, which was done under nitrous-oxide-ether anesthesia. The incision was made in the median line, just above

the pubes, on account of the maximum tenderness being at that point, and of the fact that by the rectum an indefinite fulness was felt in the pelvis. A diffuse sero-purulent peritonitis extending to the transverse colon was found, and the belly contained free gas. The pelvis contained coils matted together by a fibrinous and purulent exudate, together with considerable fecal matter. One of the coils of the ileum, lying at the bottom of the pelvis, exhibited a single perforation about 4 mm. in diameter. This was closed by a silk purse-string and reinforced by a continuous silk suture. No other perforations or thinned portions needing suture were found. The mesenteric glands were considerably enlarged. The abdominal cavity was thoroughly irrigated with the double current irrigator, and the wound closed with a cigarette drain reaching to the bottom of the pelvis. Time of operation, 23 minutes.

In this patient, the perforation had evidently occurred at 12 o'clock noon on the day before; that is, just 24 hours before operation, and had caused a local pelvic peritonitis. Six hours before operation it had burst its confines and spread, giving rise to the characteristic signs of peritonitis. The location of the perforation in the pelvis was responsible for the slight symptoms at first, the marked improvement in the earlier symptoms having been undoubtedly due to the slow absorption that occurs in pelvic inflammations. The after-course was characterized by a fair recovery at first, but with continued suppuration from the wound, with no tendency to heal. On the fifty-first day after operation the sinus was explored, under ether, and a quantity of dirty granulations from a deep pocket in the pelvis were curetted out. After this procedure, his convalescence was steady, and he was discharged on the seventy-second day, with a small granulation at the site of drainage.

#### CEREBRAL CONTUSION; OPERATION.

DR. JOHN A. HARTWELL presented a boy, ten years old, who was admitted to the Lincoln Hospital February 4, at 2 P.M., with the history of having fallen a distance of 20 or 30 feet, and landing on his head and shoulders. No one actually saw him fall, so that it was impossible to get accurate data on the above points. He was brought to the hospital in the ambulance in a condition

of considerable shock, and partial coma. He could be aroused with difficulty; surface cold and pale; temperature 99.2; pulse 120 and weak; respiration, 32. There was no paralysis. Pupils were dilated. No localizing symptoms of any sort could be made out. Examination of the head showed an extensive haematoma over vertex and left parieto-frontal region. No evidence of fracture could be made out under this haematoma. There was no bleeding from the ears, mouth or nose, nor any subconjunctival haemorrhage. The child was put to bed and the usual remedies for shock, including rectal irrigations and morphine, were given. In the course of an hour the shock had considerably lessened, and the coma was less deep. He continued to recover from the shock, but the coma again deepened, and the irritability, on being aroused, was becoming excessive. No coördinated response could be elicited in any way. He resented very markedly any manipulations, or any effort to make him answer questions. He failed to recognize his father.

All the reflexes were markedly exaggerated, but no paralyses or anaesthesiae could be made out. His condition was diagnosed as one of severe cerebral concussion, with progressing paralysis of the cerebral vessels, and beginning oedema of the brain. Under ether anaesthesia, two hours and a-half after admission, incisions were made over the haematomata, and the skull explored; no evidence of fracture could be found. It was determined to open the skull for the purpose of exploration. Accordingly, the temporal muscle on the left side was exposed along its origin, its fascia turned back by a semilunar incision, and the fibres separated vertically, according to the method advocated by Cushing. A one-inch trephine opening was then made at a point one and a-half inches above, and one inch in front of the external auditory meatus, exposing the dura; this was seen to be dark in color, very tense, and without pulsation. No extra-dural haemorrhage was found. The skull was rongeured away in all directions, making an opening of about  $2\frac{1}{2}$  inches in a longitudinal by 2 inches in a vertical diameter. The same condition of the dura was present in this whole area. A small opening was then made in the dura, and blood-tinged cerebro-spinal blood spurted out to the distance of about 3 or 4 inches, thus showing the pressure under which it existed. The dura was then cut away

over the whole surface from which the bone had been removed, exposing the brain beneath; the brain did not pulsate, the small superficial blood-vessels were dilated to three or four times their natural size, and the blood in them was of a dark, venous color. There was no actual trauma of either the vessels or the brain-tissue itself apparent. In the course of three or four minutes the pulsation in the brain gradually returned; the blood-vessels became much less prominent, and the blood in them became of an arterial color. Coincident with these changes, the condition of the patient's pulse and respiration was closely watched, but it could not be determined that any change took place, the pulse rate remaining from 110 to 120. The temporal muscle, which had been retracted antero-posteriorly during the manipulations in the skull and brain, was now allowed to fall together again, and was tacked with three or four catgut sutures; the temporal fascia was carefully sutured along the curved section with catgut, a small drain being left down to the brain-tissue. A copious dry dressing was applied to the wound. The child recovered from his anaesthesia without incident, and in the course of 3 or 4 hours was entirely conscious with practically no symptoms of cerebral irritation. He gave the details of his injury, and told his name and address. His convalescence was uneventful; the wound healed *per primam*, and the pulsation beneath the temporal covering of the brain has been present ever since. There is no tendency for any increase in the size of the cerebral protrusion, but on the other hand, a decrease. Immediately after the operation, and during the following days, it was as much as one-half to three-quarters of an inch above the skull level. It has gradually lessened, until now its maximum is only one-quarter of an inch, and palpation shows it to be less tense than it was two weeks ago. It would have been better to have made an osteoplastic flap, but no instrument for this was at hand, excepting the gouge and mallet, which, under the existing conditions, would have been exceedingly dangerous from the continued jarring necessitated. An attempt to leave the dura *in situ* and re-suture it failed because of the great tension, and the subsequent gradual subsidence of this tension shows that a replacement of this dense membrane would have continued to an excessive intracranial compression, and defeated the very object of the operation. The uncovered

brain is a "silent area," and it may be hoped that the pericranium will develop enough thickness and firmness to protect it.

The conditions which determined operation on this boy were rapidly increasing coma and cerebral excitability, with the strong belief by all those observing him that he was developing the very condition found,—namely, a vasomotor, paralytic cerebral œdema, which would inevitably prove fatal if not relieved. The absence of localizing symptoms left no other course than to produce a de-compression of the brain, and thus combat the loss of tone in the cerebral vessels.

*Subsequent Note, March 5, 1906.*—The protrusion of the brain has entirely subsided, and given place to a depression one-half inch below the scalp; that is, to its normal level.

DR. GEORGE WOOLSEY said he had done a somewhat similar operation in a case of tumor of the brain for the same purpose as proposed by Dr. Cushing, although in his own case he did not split the temporal muscle, as he wanted more room. The operation was comparatively easy, although it simply disclosed an increase in brain pressure. A needle was inserted into the lateral ventricle, and about six drams of fluid withdrawn. The man made a prompt recovery from the operation, and the very severe headache, from which he had previously suffered, disappeared. He was also practically totally blind and deaf; the former symptom was unaffected by the operation, but there was slight improvement in the deafness. The operation was justifiable in cases where the brain lesion could not be localized, and where there were indications for relief from brain pressure.

#### FORWARD DISLOCATION OF THE CARPUS.

DR. IRVING S. HAYNES presented a man, 35 years old, who was admitted to hospital on January 30, 1906. The history he gave was that last September, while working at a wire-machine, his right hand was caught in a loop of wire and severely twisted. After the accident, he was treated for a time at the dispensary.

Examination showed a scar one-quarter of an inch wide across the back of the wrist. The lower end of the radius was considerably thickened, but the styloid process seemed to be in its normal relation to that of the ulna. There was a complete forward dislocation of the carpus, without lateral displacement.

The movements of the wrist were fair, and those of the fingers were normal, but he complained that the hand tired easily. An X-ray negative showed a forward dislocation of the carpus, and apparently an indistinct line of fracture of the radius about one inch above its lower end, with slight tilting backward of the lower fragment. In other words, it looked like an old Colles' fracture, with dislocation of the carpus in addition.

On January 31, 1906, under ether anaesthesia, reduction was attempted by manipulation, but this proved impossible. The joint was thereupon exposed through lateral incisions; an examination confirmed the above findings, and showed, in addition, that the carpus lay in a shallow depression in front of the radius. The first row of carpal bones were removed singly, and reduction was then easily accomplished. A through-and-through drain of a dozen silkworm-gut strands were inserted, and the wounds sutured. A plaster-of-Paris dressing maintained the hand in an over-corrected position. The drainage was removed on February 2, and the patient was discharged five days later.

An examination on February 28 showed that the position of the carpus was good. There was excellent motion in the wrist and fingers, considering the short time that had elapsed since the operation, and the continued use of the splints. The incisions healed without incident save in one small spot.

#### HYPERTROPHY (FIBROADENOMA) OF THE BREAST.

DR. IRVING HAYNES presented a photograph and specimen, removed from a girl of thirteen years, who was admitted to hospital on January 26, 1906.

In April, 1905, it was noticed that both breasts began to enlarge. They were a little painful on pressure, but this symptom soon disappeared. The breasts were almost equal in size, the right one being perhaps slightly larger than the left until last September, when the latter began to enlarge very rapidly. Menstruation, at that time, had been established a year ago, and was regular.

Examination showed that the right breast covered the area from the second to the sixth ribs, and from the anterior axillary line to an inch and a-half from the sternum. It was firm, and



FIG. 1.—Fibro-adenoma of breast.

while considerably larger than usual for a girl of her age, it did not show any evidences of abnormal growth.

The left breast was very large, reaching to the ilium when the patient was standing (Fig. 1.). A record was not made of its length and circumference, but after removal it weighed exactly eight pounds. The nipple was flattened, and the region about it excoriated. Sensation over the area was diminished. The breast was freely movable on the deeper structures; it was not painful, and only inconvenient by reason of its weight and size. The axillary glands were not enlarged.

On January 30, 1906, under ether anaesthesia, the breast was easily and quickly removed. The wound healed by primary union, and the patient left the hospital on February 13. Dr. Rogers, pathologist to the hospital, reported that the growth was a fibroadenoma undergoing mucoid degeneration.

In addition to the hypertrophy of the breast, the girl had a fibrous growth of the gums of the right side of both the upper and lower jaws, in which the teeth were nearly buried. This growth had existed since childhood; it was not painful, it did not bleed, and had been very slow in its development.

DR. BLAKE said the condition of the girl's gums recalled a case of symmetrical hypertrophy of the gums which came under his observation about three or four years ago. On looking up the subject at that time, he found that the condition was a rare one. The microscope showed a dense, fibrous hyperplasia of the tissue of the gums, and suggested some defective nerve influence. The condition was analogous to what he had observed in hypertrophy of the bones and tissues of one side of the face.

#### THE DIAGNOSIS AND TREATMENT OF TYPHOID PERFORATION.

DR. GEORGE WOOLSEY read a paper with the above title (for which see page 652).

DR. JOSEPH A. BLAKE said he thought it was a reproach that more of these patients did not come to operation. His own experience with typhoid perforation was limited to eight cases, with four recoveries. In regard to the diagnosis and the indications for operation, Dr. Blake said he agreed essentially with Dr. Woolsey. He mentioned one case which he saw in con-

sultation with Dr. Peek last fall where there was pain and a trifling amount of rigidity; an operation was advised, but the attending physician decided to wait a little longer and the patient eventually recovered without an operation. In that case there were undoubted signs of peritonitis, probably from deep ulcerations, and an operation would perhaps have been the least dangerous plan of treatment.

Rigidity, Dr. Blake said, was not a very reliable symptom in typhoid perforation, although sometimes it was pronounced. Pain was the most important symptom, but the fact should not be lost sight of that the sensorium of these patients was oftentimes clouded. In operating, the speaker said, he had always employed general anæsthesia, and made his incision in the lower part of the rectus. In some of his cases, he had closed the wound without drainage; in these, there had not been much exudate left in the abdomen, and they did as well or better than those in which drainage was employed. He had always irrigated freely with large quantities of saline solution.

DR. JOHN A. HARTWELL reported the case of a friend not under his own care where during the third week of typhoid there was haemorrhage from the bowels, with vomiting, and sudden pain in the right lower quadrant of the abdomen. Rigidity was not marked. Upon opening the abdomen, there were evidences of peritonitis, with considerable exudate, which was just becoming purulent. No perforation was found. Drainage was established and recovery ensued.

In a second case occurring in the service of Dr. Adrian V. S. Lambert, at the Lincoln Hospital, the woman gave a history of having been ill for five or six weeks. She had had fever and pain in the abdomen, and was bedridden, but the exact nature of her illness had not been determined. Upon examination, a tumor was made out in the region of the appendix, and she was operated on under the impression that the case was one of appendicitis. Upon opening the abdomen in the usual site for such operations, a large abscess was evacuated, but the appendix itself could not be found. Shortly after this operation, the patient developed a faecal fistula which failed to heal, and after five or six months the abdomen was again opened through the old scar, and several large perforations were found, one in

the *caput coli*, and the others in a coil of the ileum at some distance from the ileoçæcal junction. The nature of these perforations suggested that they were due to some ulcerative condition. The appendix, apparently perfectly normal, was found lying behind the cæcum, and it had evidently not been the cause of the previous trouble. The case, was reported as possibly one of typhoid fever, with ulcerations through the cæcum, though the indefiniteness of the early history made the diagnosis necessarily uncertain.

DR. WOOLSEY, in closing, in discussing the subject of peritonitis without perforation, said it was a well established fact that adhesive peritonitis did occur, and he had seen cases where omental adhesions covered an ulcerated Peyer's patch. In a case shown at a meeting of the Society some years ago by Dr. F. Tilden Brown, in which recovery had taken place after perforation, the result was partly attributed to the fact that the omentum had become adherent over the ulcerated Peyer's patch, and had acted as a trap-door, so that very little exudate escaped into the peritoneal cavity. In that case, the wound was closed without drainage. Such a condition would also account for the so-called cases of perforation that recovered without operation. This subject had given rise to a good deal of controversy, and while some held that the mortality of typhoid perforation without operation was 95 per cent., others claimed that it was as high as 100 per cent. Osler is reported to have never seen a recovery in such a case. In those cases where recovery occurred, there was probably a certain degree of peritonitis, but without perforation.